

# Abstract of the Disclosure

In the two-dimensional array type radiation detector, one of gate bus lines, which send scanning pulses from a gate driver section controlled by a control section to gates of FETs, and one of data bus lines, which transfer signals in photoelectric conversion elements to a data collecting section, are arranged parallel to each other to be disposed in one row of insensitive sections, respectively. The gate bus lines and data bus lines are taken out from one side of the detector panel, and the control section, the gate driver section and the data collecting section are disposed at the same side of the detector panel. By connecting a plurality of modules each being structured as stated above, a two-dimensional array type radiation detector having a large detecting surface, which is required for a cone beam X-ray CT apparatus, can be formed.